



3Q22

Quarterly Management Report
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Operating Results Review:

CONTACT

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Topics in This Report:

- Revenue Analysis
- Profit & Expense Analysis
- Financial Condition Review
- Cash Flow
- CapEx
- Recap of Recent Important Events & Announcements

Summary:

(Amounts are on consolidated basis and are in NT\$ billions unless otherwise noted)

| | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> | <u>QoQ</u> | <u>YoY</u> |
|---|--------------|--------------|--------------|------------|------------|
| EPS (NT\$ per common share) | 10.83 | 9.14 | 6.03 | 18.5% | 79.8% |
| (US\$ per ADR unit) | 1.79 | 1.55 | 1.08 | | |
| Net Revenue (US\$ billions) | 20.23 | 18.16 | 14.88 | 11.4% | 35.9% |
| Net Revenue | 613.14 | 534.14 | 414.67 | 14.8% | 47.9% |
| Gross Profit | 370.50 | 315.47 | 212.75 | 17.4% | 74.2% |
| <i>Gross Margin</i> | <i>60.4%</i> | <i>59.1%</i> | <i>51.3%</i> | | |
| Operating Expenses | (60.19) | (53.38) | (41.65) | 12.8% | 44.5% |
| Other Operating Income and Expenses | 0.01 | 0.03 | (0.10) | | |
| Operating Income | 310.32 | 262.12 | 171.00 | 18.4% | 81.5% |
| <i>Operating Margin</i> | <i>50.6%</i> | <i>49.1%</i> | <i>41.2%</i> | | |
| Non-Operating Items | 6.37 | 3.88 | 2.85 | | |
| Net Income Attributable to Shareholders of the Parent Company | 280.87 | 237.03 | 156.26 | 18.5% | 79.7% |
| <i>Net Profit Margin</i> | <i>45.8%</i> | <i>44.4%</i> | <i>37.7%</i> | | |
| Wafer Shipment (kpcs 12 inch-equiv.) | 3,974 | 3,799 | 3,646 | 4.6% | 9.0% |
| Average Exchange Rate--USD/NTD | 30.32 | 29.42 | 27.87 | 3.1% | 8.8% |

Note: Diluted weighted average outstanding shares were 25,929mn units in 3Q22

Financial Highlights:**Third Quarter 2022**

- Net revenue was NT\$613.14 billion, representing an 14.8% increase from NT\$534.14 billion in 2Q22 and a 47.9% increase from NT\$414.67 billion in 3Q21.
- Gross margin was 60.4%, 1.3 percentage points higher than 2Q22 and 9.1 percentage points higher than 3Q21.
- Operating margin was 50.6%, up 1.5 percentage points from 2Q22 and up 9.4 percentage points from 3Q21.
- Non-operating items were a gain of NT\$6.37 billion, compared to a gain of NT\$3.88 billion in 2Q22 and a gain of NT\$2.85 billion in 3Q21.
- Net income attributable to shareholders of the parent company was NT\$280.87 billion, up 18.5% from 2Q22 and up 79.7% from 3Q21. Net profit margin was 45.8% and diluted EPS was NT\$10.83.

I. Revenue Analysis

| Wafer Revenue by Technology | 3Q22 | 2Q22 | 3Q21 |
|-----------------------------|------|------|------|
| 5nm | 28% | 21% | 18% |
| 7nm | 26% | 30% | 34% |
| 16nm | 12% | 14% | 13% |
| 28nm | 10% | 10% | 10% |
| 40/45nm | 7% | 8% | 8% |
| 65nm | 5% | 5% | 4% |
| 90nm | 2% | 2% | 2% |
| 0.11/0.13um | 3% | 3% | 3% |
| 0.15/0.18um | 6% | 6% | 6% |
| 0.25um and above | 1% | 1% | 2% |

| Net Revenue by Platform | 3Q22 | 2Q22 | 3Q21 |
|------------------------------|------|------|------|
| Smartphone | 41% | 38% | 44% |
| High Performance Computing | 39% | 43% | 37% |
| Internet of Things | 10% | 8% | 9% |
| Automotive | 5% | 5% | 4% |
| Digital Consumer Electronics | 2% | 3% | 3% |
| Others | 3% | 3% | 3% |

| Net Revenue by Geography | 3Q22 | 2Q22 | 3Q21 |
|--------------------------|------|------|------|
| North America | 72% | 64% | 65% |
| Asia Pacific | 10% | 12% | 13% |
| China | 8% | 13% | 11% |
| EMEA | 5% | 6% | 6% |
| Japan | 5% | 5% | 5% |

Revenue Analysis:

In the third quarter, revenue increased 14.8% quarter-over-quarter, supported by strong demand for our industry-leading 5nm technologies.

By technology, 5nm process technology contributed 28% of total wafer revenue in 3Q22 while 7nm accounted for 26%. Advanced technologies (7nm and below) accounted for 54% of total wafer revenue.

By platform, Smartphone and HPC represented 41% and 39% of net revenue respectively, while IoT, Automotive, DCE, and Others each represented 10%, 5%, 2%, and 3%.

Sequentially, revenue from Smartphone, HPC, IoT, Automotive, and Others increased 25%, 4%, 33%, 15%, and 10% respectively, while DCE decreased 2%.

From a geographic perspective, revenue from customers based in North America accounted for 72% of total net revenue, while revenue from Asia Pacific, China, EMEA (Europe, Middle East, and Africa) and Japan accounted for 10%, 8%, 5%, and 5% of total net revenue respectively.

II. Profit & Expense Analysis

| II - 1. Gross Profit Analysis | | | |
|-------------------------------|---------------|---------------|---------------|
| (In NT\$ billions) | 3Q22 | 2Q22 | 3Q21 |
| Net Revenue | 613.14 | 534.14 | 414.67 |
| Cost of Revenue | (242.64) | (218.67) | (201.92) |
| Gross Profit | 370.50 | 315.47 | 212.75 |
| Gross Margin | 60.4% | 59.1% | 51.3% |

Gross Profit Analysis:

Gross margin was 60.4% in 3Q22, 1.3 percentage points higher than 2Q22, mainly reflecting a more favorable foreign exchange rate and cost improvement.

II - 2. Operating Income Analysis

| (In NT\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
|---|----------------|----------------|----------------|
| Total Operating Expenses | (60.19) | (53.38) | (41.65) |
| Research & Development | (42.98) | (39.65) | (30.87) |
| SG&A | (17.21) | (13.73) | (10.78) |
| Other Operating Income and Expenses | 0.01 | 0.03 | (0.10) |
| Operating Income | 310.32 | 262.12 | 171.00 |
| Operating Margin | 50.6% | 49.1% | 41.2% |
| Total Operating Expenses as % of Net Revenue | 9.8% | 10.0% | 10.1% |

Operating Income Analysis:

Total operating expenses increased NT\$6.81 billion to NT\$60.19 billion in 3Q22, accounting for 9.8% of net revenue, as compared to 10.0% in 2Q22. Operating margin improved 1.5 percentage points sequentially to 50.6% in 3Q22.

II - 3. Non-Operating Items

| (In NT\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
|---------------------------------------|-------------|-------------|-------------|
| L-T Investments | 2.08 | 2.26 | 1.52 |
| Net Interest Income (Expenses) | 3.25 | 0.64 | 0.02 |
| Other Gains and Losses | 1.04 | 0.98 | 1.31 |
| Total Non-Operating Items | 6.37 | 3.88 | 2.85 |

Non-Operating Items:

Total non-operating items were a gain of NT\$6.37 billion in 3Q22, compared to a gain of NT\$3.88 billion in 2Q22. The increase was mainly due to higher interest income.

II - 4. Net Profit and EPS

| (In NT\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
|--|----------------|----------------|----------------|
| Income before Tax | 316.69 | 266.00 | 173.85 |
| Income Tax Expenses | (35.72) | (28.82) | (17.37) |
| Effective Tax Rate | 11.4% | 10.9% | 10.1% |
| Net Income Attributable to the Parent Company | 280.87 | 237.03 | 156.26 |
| Net Profit Margin | 45.8% | 44.4% | 37.7% |
| EPS (NT\$ per common share) | 10.83 | 9.14 | 6.03 |

Net Profit and EPS:

Net income attributable to shareholders of the parent company was NT\$280.87 billion in 3Q22, up 18.5% from 2Q22 and up 79.7% from 3Q21.

III. Financial Condition Review

| III - 1. Liquidity Analysis | | | |
|---|-----------------|-----------------|-----------------|
| (Balance Sheet Items) | | | |
| (In NT\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
| Cash & Marketable Securities | 1,498.87 | 1,425.57 | 975.82 |
| Accounts Receivable | 261.54 | 222.07 | 187.17 |
| Inventories | 218.34 | 217.44 | 182.23 |
| Other Current Assets | 35.48 | 40.79 | 25.42 |
| Total Current Assets | 2,014.23 | 1,905.87 | 1,370.64 |
| Short-term Loans | 0.00 | 115.58 | 118.84 |
| Accounts Payable | 221.80 | 220.31 | 172.26 |
| Current Portion of Bonds Payable and Bank Loans | 23.43 | 17.06 | 0.00 |
| Dividends Payable | 142.62 | 142.81 | 142.62 |
| Accrued Liabilities and Others | 419.58 | 349.48 | 221.90 |
| Total Current Liabilities | 807.43 | 845.24 | 655.62 |
| Current Ratio (x) | 2.5 | 2.3 | 2.1 |
| Net Working Capital | 1,206.80 | 1,060.63 | 715.02 |

Liquidity Analysis:

Total current assets increased by NT\$108.36 billion, mainly due to the increase of NT\$73.30 billion in cash and marketable securities and the increase of NT\$39.47 billion in accounts receivable.

Total current liabilities decreased by NT\$37.81 billion, mainly due to the decrease of NT\$115.58 billion in short-term loans, partially offset by the increase of NT\$70.10 billion in accrued liabilities and others.

Net working capital was NT\$1,206.80 billion and current ratio was 2.5x in 3Q22.

| III - 2. Receivable/Inventory Days | | | |
|---|-------------|-------------|-------------|
| (In Number of Days) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
| Days of Receivable | 36 | 37 | 40 |
| Days of Inventory | 90 | 95 | 85 |

Receivable and Inventory Days:

Days of receivable decreased 1 day to 36 days in 3Q22.

Days of inventory decreased 5 days to 90 days, primarily due to higher wafer shipments during the quarter.

| III - 3. Debt Service | | | |
|------------------------------|---------------|---------------|---------------|
| (In NT\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
| Cash & Marketable Securities | 1,498.87 | 1,425.57 | 975.82 |
| Interest-Bearing Debts | (868.87) | (889.85) | (582.05) |
| Net Cash Reserves | 630.00 | 535.72 | 393.77 |

Debt Service:

Net cash reserves increased NT\$94.28 billion to NT\$630.00 billion in 3Q22.

Interest-bearing debts decreased NT\$20.98 billion in 3Q22, mainly due to the decrease in short-term loans of NT\$115.58 billion, partially offset by issuance of NT\$59.65 billion in corporate bonds.

IV. Cash Flow

| IV - 1. Quarterly Cash Flow Analysis | | | |
|--------------------------------------|-----------------|-----------------|-----------------|
| (In NT\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>3Q21</u> |
| Income before Tax | 316.69 | 266.00 | 173.85 |
| Depreciation & Amortization | 105.34 | 113.23 | 107.03 |
| Other Operating Sources/(Uses) | (9.33) | (40.38) | 37.83 |
| Net Operating Sources/(Uses) | 412.70 | 338.85 | 318.71 |
| Capital Expenditures | (265.97) | (217.73) | (188.64) |
| Marketable Financial Instruments | (24.61) | (59.59) | 9.07 |
| Other Investing Sources/(Uses) | 6.18 | 1.39 | 2.55 |
| Net Investing Sources/(Uses) | (284.40) | (275.93) | (177.02) |
| Short-term Loans | (116.01) | (26.48) | (18.09) |
| Cash Dividends | (71.30) | (71.31) | (64.83) |
| Bonds Payable | 59.65 | 108.84 | 49.32 |
| Other Financing Sources/(Uses) | (2.74) | 8.03 | (1.73) |
| Net Financing Sources/(Uses) | (130.40) | 19.08 | (35.33) |
| Exchange Rate Changes | 44.92 | 19.60 | (0.53) |
| Cash Position Net Changes | 42.82 | 101.60 | 105.83 |
| Ending Cash Balance | 1,296.01 | 1,253.19 | 853.81 |

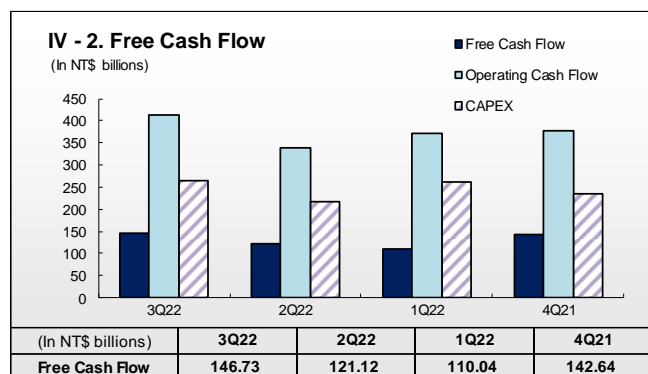
Summary of Cash Flow:

During the third quarter, cash generated from operating activities totaled NT\$412.70 billion, including (1) NT\$316.69 billion from income before tax, (2) NT\$105.34 billion from depreciation & amortization expenses, and (3) NT\$9.33 billion for other operating uses. The decreased of other operating uses compared to 2Q22 were mainly attributable to less income tax payment and changes in working capital.

Net cash used in investing activities was NT\$284.40 billion in 3Q22, primarily attributable to capital expenditures of NT\$265.97 billion and the net increase in marketable financial instruments of NT\$24.61 billion.

Net cash used in financing activities was NT\$130.40 billion, mainly reflecting the net decrease in short-term loans of NT\$116.01 billion and the payment of 4Q21 cash dividends of NT\$71.30 billion, partially offset by the increase in bonds payable of NT\$59.65 billion.

As a result, cash position increased NT\$42.82 billion to NT\$1,296.01 billion at the end of 3Q22.



Operating and Free Cash Flow:

Free cash flow increased NT\$25.61 billion to NT\$146.73 billion in 3Q22, as the increase in operating cash flow outpaced the increase in capital expenditures during the quarter.

V. CapEx

| V. Capital Expenditures | | | | |
|-----------------------------|-------------|-------------|-------------|--------------|
| (in US\$ billions) | <u>3Q22</u> | <u>2Q22</u> | <u>1Q22</u> | <u>YTD</u> |
| Capital Expenditures | 8.75 | 7.34 | 9.38 | 25.47 |

Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$8.75 billion in 3Q22.

VI. Recap of Recent Important Events & Announcements

- TSMC Board of Directors Approved the Issuance of US Dollar-Denominated Senior Unsecured Corporate Bonds for an Amount Not to Exceed US\$4 Billion to Finance TSMC's Capacity Expansion (2022/08/09)
- TSMC Board of Directors Approved NT\$2.75 Cash Dividend for the Second Quarter of 2022 and Set December 15 as Ex-Dividend Date, December 21 as the Record Date and January 12, 2023 as the Distribution Date (2022/08/09)